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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/985,937	11/06/2001	Thomas Nosker	POLY 2	4212

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EXAMINER

LE, MARK T

ART UNIT	PAPER NUMBER
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3617

DATE MAILED: 06/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/985,937

Applicant(s)

NOSKER ET AL.

Examiner

Mark T. Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other:

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DETAILED ACTION

DETAILED ACTION

1. In the abstract, line 2, "tosliding" is a typographical error. Correction should be in order.
2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because the post office address does not include the ZIP Code designation.

3. The specification is objected to because it does not include all the sections for a complete specification. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

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- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the railroad ties having various textures or shaped recesses, as recited throughout the claims (note also the specific arrangement of shallow and deep recesses recited in claims 21-23), must be shown or the features must be canceled from the claims. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. In claim 17, line 1, "a a" is a typographical errors.

6. Claims 9,11, 16-19 and 24-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 9 and 11 are indefinite because pyramidal shape does not have a diameter.

Claims 24-25 are indefinite because method steps are not clearly defined for the method claims.

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Claim 17 is indefinite because the word "optional" does not positively define the claimed feature that follows said word.

7. Due to the nature of indefiniteness of claims 9, 11, 16 and 24-25, these claims cannot be further treated on the merits.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Garber (US 1,297,828).

Garber discloses a railroad tie as recited in the instant claims, including concave shapes 10.

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1-2, 12 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nosker (US 5,916,932) in view of Garber (US 1,297,828).

Nosker discloses a polymeric railroad tie similar to that recited in the instant claims, except that it does not include an arrangement of concave shapes as recited in the instant claims.

Applicant should consider concave shapes 10 of Garber.

In view of Garber, it would have been obvious to skilled in the art to provide an arrangement of concave shapes on the tie of Nosker, in a manner similar to that taught by Garber, so as to enhance the tie's resistance to sliding.

Regarding the claimed depth of $\frac{1}{4}$ - $\frac{1}{2}$ inches or less than 1 inch and up to 2 inches, note concave shapes 10 of Garber, which have a very shallow depth that is approximately in the claimed range. On the other hand, the concept of increasing or decreasing such depth so as to proportionally increase or decreasing the tie's resistance to sliding and increase or decrease the tie's structural integrity is merely a matter of common sense; and as a matter of common sense, it would have been obvious to one skilled in the art to increase or decrease such depth of Garber's tie so as to achieve a compromised depth that would be at a desired level of resistance to sliding and of desired structural integrity. Note that if the concave shapes of Garber were formed with e.g. a depth of $\frac{1}{2}$ inch, then the instant claimed limitation would be met

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because a depth of $\frac{1}{2}$ inch would also fall in the range of less than 1 inch and up to 2 inches.

12. Claims 1-8, 10, 12-15, and 17-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nosker (US 5,916,932) in view of Reis (US 2,051,619).

Nosker discloses a polymeric railroad tie similar to that recited in the instant claims, except that it does not include an arrangement of concave shapes.

Applicant should consider the concave shapes 9 and 5 of Reis.

In view of Reis, it would have been obvious to skilled in the art to provide an arrangement of concave shapes on Nosker's tie, in a manner similar to that taught by Reis, for performing the expected functions thereof.

Regarding the claimed truncated cones, consider concave shapes 5 of Reis.

Regarding the claimed truncated pyramidal shapes, consider concave shapes 9 of Reis.

Regarding the angle of the claimed cones, it is the examiner's position that the angle of cones 5 of Reis is approximately of the claimed angle, and if there is any minor difference therebetween, it should be merely an insignificant variation that is not critically important to the function/operation of the tie. It would have been obvious to one skilled in the art to form the cone's angle of Reis within the instant claimed range because the concept of varying the cone's angle of Reis within a range of tolerance that is not critical to the function or operation of Reis's structure is merely a matter of common sense of one skilled in the art.

Regarding the diameter of the concaved shaped being between $\frac{3}{4}$ -2 inches, it is the examiner's position that the diameter of Ries appears to be within the claimed size.

Regarding the claimed depth of $\frac{1}{4}$ - $\frac{1}{2}$ inches or less than 1 inch and up to 2 inches, note concave shapes 5 and 9 Reis, which have a very shallow depth that is approximately in the claimed range. On the other hand, the concept of increasing or decreasing such depth so as to proportionally increase or decreasing the tie's resistance to sliding and increase or decrease the tie's structural integrity is merely a matter of common sense; and as a matter of common sense, it would have been obvious to one skilled in the art to increase or decrease such depth of Reis's tie so as to achieve a compromised depth that would be at a desired level of resistance to sliding and of desired structural integrity. Note that if the concave shapes of Ries were formed with e.g. a depth of $\frac{1}{2}$ inch, then the instant claimed limitation would be met because a depth of $\frac{1}{2}$ inch would also fall in the range of less than 1 inch and up to 2 inches.

Regarding the claimed components of the mixture and the percentage weight of each component, it is the examiner's position that as a matter of common sense, it would have been obvious to one skilled in the art to form the railroad tie of Nosker et al from a mixture of known materials having known characteristics so as to achieve the expected advantages of such known materials; and as to the claimed percentages of the components of the mixture, it is also a matter of common sense because one skilled in the art would have been able to justify the percentages of mixture of the components in relative to the desired effective contribution of each of said components.

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13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant should further consider the structures of Oestmann, Marinelli, Hadley, and Holden.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark T. Le whose telephone number is 703-308-3663. The examiner can normally be reached on Mon-Fri (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samuel Morano can be reached on 703-308-0230. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.



Mark T. Le
Primary Examiner
Art Unit 3617

mle
June 10, 2002